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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/664,993	09/18/2000	Gangfeng Cai	2039.006100	4102

7590 06/13/2002

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7676 Hillmont  
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Houston, TX 77040

EXAMINER
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NOLAN, SANDRA M

ART UNIT	PAPER NUMBER
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1772

15

DATE MAILED: 06/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/664,993

Applicant(s)

CAI ET AL.

Examiner

Sandra M. Nolan

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 May 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on May 21, 2002—both the RCE request (Paper No. 13) and the preliminary amendment (Paper No. 14) have been entered.

***Claims***

2. Claims 1-17 are pending.

***Rejections Maintained***

3. The 35 USC 103 rejection of claims 1-12 and 16-17, as originally presented in section 7 of the November 7, 2001 Office Action (Paper No. 8), is maintained for reasons of record.

4. The 35 USC 103 rejection of claims 13-15, as originally presented in section 8 of Paper No. 8, is maintained for reasons of record.

***New Rejections***

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1772

W/ (1)

6. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is a new matter rejection. The expressions "providing substantially all of the interior surface of the rigid container" and "substantially coextensive" are not supported by the original specification.

Support for these phrases in the original application should be pointed out or they should be deleted from the claims.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

W/ (1)

8. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

What does "substantially" mean? That is how much of the inner surface need not be provided by the oxygen scavenging layer for it to still be "substantially all of the interior surface"? How coextensive is "substantially coextensive"?

Please clarify the claims.

### ***Response to Arguments***

9. Applicant's arguments filed in Paper No. 14 have been fully considered but they are not persuasive.

The arguments in Paper No. 14 will be responded to in the order in which they were presented.

On page 2, applicants argue that one would not be motivated to apply the polymer coating of Nordstrom to the surface of an oxygen scavenging ribbon or to incorporate a coating polymer into the interior of an oxygen scavenging ribbon.

However, the examiner has not suggested that a coating of oxygen scavenger be applied to the surface of a ribbon. Rather, she has suggested, and the art--as combined--suggests, that the inner layer of Ching's ribbon be used as the inner layer of the claimed container. The utility of the Nordstrom polymers as interior coatings is consistent with Ching's use of similar polymers as the innermost layer in its (Ching's) ribbon. See col. 4, lines 35+ of Ching, where it states that the oxygen scavenger may be coated onto a polymer layer.

On page 3, applicants argue that their claims, as presently amended, call for the use of the oxygen scavenger to provide substantially all of the interior surface of the container and to be substantially coextensive with the inner and outer layers.

However, the use of "substantially" in the new limitations renders them indefinite. See the second 35 USC 112 rejection above.

The interior layers of Ching's articles are deemed to be substantially coextensive with the outer layers around them. For the interior layer to be less extensive than the outer layers, the outer layers would have to be thicker than the interior layer. However, in Figure 1, Ching shows that thickness of the outer layers about the same as that of the

Art Unit: 1772

interior layer. Also, Ching does not require that the outer layers meet any particular thickness limitation in order to enclose the interior layer.

On page 3, applicants argue that Nordstrom does not teach or suggest the multilayer structure that they claim.

However, Ching suggests multilayer oxygen scavenging systems and Nordstrom teaches the type of oxygen scavenging polymers that applicants use in their inner layer.


In the paragraph bridging pages 3 and 4, applicants refer to the Katsumoto teachings, but do not present specific arguments against their use.

Accordingly, the examiner will comment on Katsumoto here. Suffice it to say that the use of Katsumoto to show photoinitiators is still deemed proper.

### ***Conclusion***

Any inquiry concerning this communication should be directed to Sandra M. Nolan, whose telephone number is 703/308-9545. The Examiner can normally be reached on Monday through Thursday, from 6:30 am to 4:00 pm, Eastern Time.

If you cannot reach Ms. Nolan by telephone, her supervisor, Harold Pyon, can be reached at 703/308-4251. The general fax number for the art unit is 703/305-5436. The fax number for after final communications is 703/872-9310. The receptionist answers 703/308-0661.

  
S. M. Nolan  
Patent Examiner  
Technology Center 1700

SMN/smn  
09664993(15)  
June 8, 2002